

brickwork so placed, a French arch; the author is unacquainted with any name for it; and were he disposed to give it one, it might be no arch or false wall.

Almost all our new buildings, which are intended to have their sins hidden by external plaster, are endowed with this kind of malformation; even over Venetian windows eight or ten feet wide, the same silly freak is repeated; sometimes these pieces of brickwork, are set in Parker's cement, but are even then little better. The truth is, they are un-aesthetically absurd; they depend upon nothing but the tenacity of the cement, or the violent friction of the bricks one against another; even if they otherwise escape fracture, the slightest settlement at the foundation is sufficient to destroy the whole of them in a building.

When the author was a youth, he first observed a whole row of houses being erected, with fifty of these sham arches; he imagined at the time, that they might be some new scientific discovery in construction; but passing the same houses a year afterwards, he found that thirty of them were hideously cracked and displaced, although they had been coloured to appear like cut radiated gauged arches.

When a review is taken of the works of the Egyptians and Greeks, and of the care which they exhibit in the spanning of apertures with masses of solid material next to eternal,—who we behold the advances in science exhibited by the architecture of the Romans, and behold that after two thousand years' arches of even contemptible materials are still firm and free from flaw,—and again when we lose ourselves in admiration of the still more economical, safe, and tasteful arches of the middle ages,—we find that down to our own times, anxious care if not refined science of the very first quality which the respective ages afforded, always presided in its most advanced state over the practice of building, and that it ever employed a chief part of its ability in covering over the apertures of buildings; we then become the more surprised, that at the present day, England, London its capital, the capital of the world's wealth, should be the seat of the most reckless modes of architecture, caused by the corruption and inattention, which have since taken possession of the whole building art, and particularly in the use of pseudo-arches; a fact too the more remarkable, from England at the present day possessing literary and graphic works upon architecture, an immeasurable deal more illustrious than were possessed by any former age, or are now possessed by any other nation.

In order to exhibit the more visibly ancient care and modern inferiority in this particular, the author brings together a few of the modes followed in times past, the meanest of which is as honourable as the frequent abuse whereof he complains is dishonourable,—an abuse which has rendered the church, the palace, the hospital, the public hall, and many other public buildings, crazy alike with the meanest and most obscure private dwelling.

No. 1.



E. Lower part of the vaulting, formed of three courses of French stone Voussoirs, joggled together.

C. View of one of the stone Voussoirs, drawn to a large scale.

D. D. Wedges in the form of wedges, rising from the upper side of one Voussoir into the under side of the Voussoir immediately above it, so as to prevent our arches from sliding upon another.

The first example here given is from a Roman vault upon the Appian Way, and exhibits not only acanthuses of a proper wedge shape, but with a curious invention, the

result of great care and skill, by which one course of the vaulting is prevented from sliding upon another; it much resembles the joggle-joints made use of in the pendent parts of a modern stone architrave.

The second example is taken from the abutments of an arch over the doorway of another Roman sepulchre, also upon the Appian Way, and exhibits even an advance in care and skill.

The third example (probably of later date, but perhaps the earliest style) is an instance of a curious but excellent mode of preventing the Voussoirs of level stone architraves or lintels from settling downwards, which became prevalent in various parts of Europe during the middle ages: It is from Diocletian's palace at Spalatro, in Dalmatia, which has often been referred to as exhibiting some germs of the peculiar ornaments which afterwards became prevalent in the Romanesque, Norman, or Byzantine style of architecture; and the gradual western spread of this same method, till it at length reached England, seems almost to furnish another argument for the Oriental origin of some particular parts at least of Gothic architecture.

The fourth example is taken from the lower story of the reputed tomb of Theodorice, at Ravenna, and exhibits a semi-circular arch with its Voussoirs joggled or refracted as those of the third example.

The fifth example is taken from the upper part of the reputed tomb of Theodorice, at Ravenna, and is similar to the third example, but displays double precaution.

The sixth example is taken from the Transept of the Norman work of the Western doorway of Rochester Cathedral.

The seventh example is from the mantel of a fire-place in Edingham Castle, Northumberland.

The eighth example is from the mantel of a fire-place in Conisborough Castle, Keol, and is exactly similar to that at Diocletian's Palace shown in the third example.

The ninth example is from the Gate of the Alhambra is copied from the magnificent Spanish Work published at Madrid, A.D. 1804, entitled "Antigüedades Árabe de España." There is even below this arch another of the Moorsen horse-shoe shape: and Mr. Murphy gives two instances of the same kind of construction in the first plate of his superb work on the Church of Batalha.

The tenth and eleventh examples are from

The immediately preceding three specimens were kindly communicated to the author by W. Twopenny, Esq., the eminent architectural antiquary.

the fifth chapter of the fourth book of Sebastiano Serlio's

"Opere d'Architettura," and are both very excellent: the following is the author's description of them (with the ancient orthography preserved).—

"Et perche la maggior parte de' superflui, o architetti che dir vogliamo, che sono posti sopra alcune porte, mureo botteghe, per la larghezza dell' apertura se la pietra non è di buonissima grossezza non può restare al peso, & per questo in processo di tempo si viene a rompere, si come in moltissimi luoghi si può vedere: si potrà per gran distanza che si sia, pur che le spalle della banda siano forti, far tal cosa di pezzi, nel modo qui disotto in due modi designato, che indubitamente tal opera sarà fortissima:" but experience will withhold the reader from following Serlio's further observation, "e quanto il carico di sopra sarà più grande l'opera andrà una maggior perpetua."

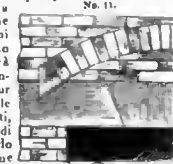
The twelfth example is taken from Mylne's work on the Blackfriars' Bridge, London, and exhibits an excellent and economical piece of construction more applicable to ordinary cases than any of the preceding examples: In this example the joggles consist each of a cubic foot of hard stone. In small works copper plugs would be more proper, from requiring the removal of less of the substance of the arch-stone in order to admit the joggles.

It is hardly necessary to observe that whatever ingenuity is displayed by each of the above examples, the Gothic architects made still greater advances in the science of constructing arches, for their pointed arches, as has been already observed, were formed without any of their parts being in jeopardy, and that they therefore needed no other means for preventing their voussoirs slipping from each other; whereas the pseudo-arches have none of their parts which are out of jeopardy. Another excellence of the pointed arches is, that they may be formed well of such small stones as to be scarcely either curved or wedged in form; and it is probable that the workman, by narrowly observing the natural irregularity and oblique angles of the blocks of stone as roughly quarried, was enabled to shape them to his purpose without any waste whatever; whereas when one knows any thing of modern masonry, is well aware of the enormous consumption both of material and labour necessary for the production of the stones of a modern arch, or of even a piece of plain square masonry.

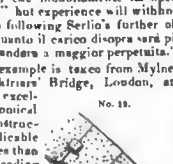
There is yet another method of forming arches which is indeed still practised in masonry: it consists in joining by an elbow to each voussoir a portion of the neighbouring horizontal course of the work. At first sight this method appears to be more excellent than any other; but observation upon its practical effect will tend considerably to lower that high estimate; as the angle of the elbow will not yield, irregular settlement will cause the horizontal part to fracture from the radial parts of the voussoirs; specimens of this mode of fracture are to be seen at the "London Institution," Moorfields, which stands on a foundation so swampy, that its side colonnades and portals have settled away from the main building, although they have been once rebuilt on the same account. In the northern gate of St. Bartholomew's Hospital, London, there



No. 10.



No. 11.



No. 12.



No. 13.